

WHAT IS CLAIMED IS:

1 1. A controller for allocating call identity values to call
2 connections associated with a switch, said switch capable of
3 handling call connections between calling devices and called
4 devices on a plurality of trunk lines associated with said switch,
5 said controller comprising:

6 N call application nodes capable of executing a plurality
7 of identity server applications that allocate call identity values
8 to said call connections, wherein a first one of said plurality of
9 identity server applications is executed on a first one of said N
10 call application nodes and is associated with a second one of said
11 plurality of identity server applications executed on a second one
12 of said N call application nodes separate from said first call
13 application node, said first and second identity server
14 applications thereby forming a load sharing group server
15 application, and

16 wherein said load sharing group server application
17 receives a call identity request from a new call process being
18 executed in said switch and selects one of said first and second
19 identity server applications to allocate a call identity value to
20 a new call connection associated with said call identity request
21 according to a load distribution algorithm.

1 2. The controller as set forth in Claim 1 wherein said first
2 identity server application allocates call identity values having
3 a first contiguous range and said second identity server
4 application allocates call identity values having a second
5 contiguous range different than said first contiguous range.

1 3. The controller as set forth in Claim 2 wherein said load
2 distribution algorithm distributes new call identity requests in an
3 alternating manner between said first and second identity server
4 applications.

1 4. The controller as set forth in Claim 2 wherein said load
2 distribution algorithm distributes new call identity requests
3 according to a current processing load of said first identity
4 server application and a current processing load of said second
5 identity server application.

1 5. The controller as set forth in Claim 4 wherein said load
2 distribution algorithm distributes said new call identity requests
3 in order to maintain said current processing load of said first
4 identity server application at a level substantially equal to said
5 current processing load of said second identity server application.

1 6. The controller as set forth in Claim 2 wherein said first
2 identity server application comprises a first primary-backup group
3 server application, wherein said first primary-backup group server
4 application comprises a first primary identity server application
5 executed on said first call application node and a first backup
6 identity server application associated with said first primary
7 identity server application.

1 7. The controller as set forth in Claim 6 wherein call state
2 information associated with said first primary identity server
3 application is mirrored to said first backup identity server
4 application associated with said first primary identity server
5 application.

1 8. The controller as set forth in Claim 7 wherein said first
2 backup identity server application resides on said first call
3 application node.

1 9. The controller as set forth in Claim 7 wherein said first
2 backup identity server application resides on a call application
3 node separate from said first call application node.

1 10. The controller as set forth in Claim 2 wherein said
2 second identity server application comprises a second primary-
3 backup group server application, wherein said second primary-backup
4 group server application comprises a second primary identity server
5 application executed on said second call application node and a
6 second backup identity server application associated with said
7 second primary identity server application.

1 11. The controller as set forth in Claim 10 wherein state
2 information associated with said second primary call process is
3 mirrored to said second backup call process associated with said
4 second primary call process.

1 12. The controller as set forth in Claim 11 wherein said
2 second backup identity server application resides on said second
3 call application node.

1 13. The controller as set forth in Claim 11 wherein said
2 second backup identity server application resides on a call
3 application node separate from said second call application node.

1 14. A wireless network comprising:

2 a plurality of base stations capable of communicating
3 with a plurality of mobile stations in a coverage area of said
4 wireless network; and

5 a mobile switching center coupled to said plurality of
6 base stations and to a public switched telephone network by a
7 plurality of trunk lines, said mobile switching center comprising
8 a controller for allocating call identity values to call
9 connections associated with a mobile station, said controller
10 comprising:

11 N call application nodes capable of executing a
12 plurality of identity server applications that allocate call
13 identity values to said call connections, wherein a first one
14 of said plurality of identity server applications is executed
15 on a first one of said N call application nodes and is
16 associated with a second one of said plurality of identity
17 server applications executed on a second one of said N call
18 application nodes separate from said first call application
19 node, said first and second identity server applications
20 thereby forming a load sharing group server application, and

21 wherein said load sharing group server application
22 receives a call identity request from a new call process being

23 executed in said switch and selects one of said first and second
24 identity server applications to allocate a call identity value to
25 a new call connection associated with said call identity request
26 according to a load distribution algorithm.

1 15. The wireless network as set forth in Claim 14 wherein
2 said first identity server application allocates call identity
3 values having a first contiguous range and said second identity
4 server application allocates call identity values having a second
5 contiguous range different than said first contiguous range.

1 16. The wireless network as set forth in Claim 15 wherein
2 said load distribution algorithm distributes new call identity
3 requests in an alternating manner between said first and second
4 identity server applications.

1 17. The wireless network as set forth in Claim 15 wherein
2 said load distribution algorithm distributes new call identity
3 requests according to a current processing load of said first
4 identity server application and a current processing load of said
5 second identity server application.

1 18. The wireless network as set forth in Claim 17 wherein
2 said load distribution algorithm distributes said new call identity
3 requests in order to maintain said current processing load of said
4 first identity server application at a level substantially equal to
5 said current processing load of said second identity server
6 application.

1 19. The wireless network as set forth in Claim 15 wherein
2 said first identity server application comprises a first primary-
3 backup group server application, wherein said first primary-backup
4 group server application comprises a first primary identity server
5 application executed on said first call application node and a
6 first backup identity server application associated with said first
7 primary identity server application.

1 20. The wireless network as set forth in Claim 19 wherein
2 call state information associated with said first primary identity
3 server application is mirrored to said first backup identity server
4 application associated with said first primary identity server
5 application.

1 21. The wireless network as set forth in Claim 20 wherein
2 said first backup identity server application resides on said first
3 call application node.

1 22. The wireless network as set forth in Claim 20 wherein
2 said first backup identity server application resides on a call
3 application node separate from said first call application node.

1 23. The wireless network as set forth in Claim 15 wherein
2 said second identity server application comprises a second primary-
3 backup group server application, wherein said second primary-backup
4 group server application comprises a second primary identity server
5 application executed on said second call application node and a
6 second backup identity server application associated with said
7 second primary identity server application.

1 24. The wireless network as set forth in Claim 23 wherein
2 state information associated with said second primary call process
3 is mirrored to said second backup call process associated with said
4 second primary call process.

1 25. The wireless network as set forth in Claim 24 wherein
2 said second backup identity server application resides on said
3 second call application node.

1 26. The wireless network as set forth in Claim 24 wherein
2 said second backup identity server application resides on a call
3 application node separate from said second call application node.